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August 20th, 2018
Joe Laydon
Town Planner
30 Providence Road
Grafton, MA 01519
Re: Proposed Dual-Use Solar Projects on Estabrook Avenue

EXHIBIT 13

RECEIVED

AUG 21 2018

**PLANNING BOARD
GRAFTON, MA**

Dear Mr. Laydon,

In response to the August 13th Planning Board meeting for the proposed dual-use solar arrays on Estabrook Avenue ("the Projects"), we submit this memo to address the board's request for clarification on how the Projects will contribute to the agricultural character of Knowlton Farm. We understand the Town recently completed an Open Space study inventory of all properties in Grafton, and identified our land as a priority conservation area. We also understand that this is driven by a desire to preserve the agricultural character of Estabrook Avenue. We are writing this letter to express our shared sentiment in this regard, as we are proud of the agricultural legacy the Knowlton Family has maintained on the property for nearly 150 years.

In light of the need to preserve this legacy, we view these dual-use arrays as an important tool to diversify the range of agricultural uses presently active on the farm as well as a key part of our strategy to revive portions of the property that historically hosted crops and livestock, but no longer do. In the case of the proposed array north of Estabrook Avenue, it will be located on a field that once hosted vegetable cultivation fifty years ago, including feed corn and potatoes. Because the solar canopy is designed to provide a diverse mix of shade and direct sun, we can increase the diversity of crops suitable for the field under the array. Additionally, because its design will accommodate a gutter and rain barrel system we can attach at our leisure, we'll have easier access to water for drip irrigation. As for the larger project across the street, we are actively reviving a dormant pasture that once hosted up to 80 cows twenty-five years ago for small-scale livestock cultivation. This will be done according to a rotational grazing plan recently approved by the Conservation Commission and NRCS Holden, MA field office, which will subsequently help rebuild soil quality, productivity, and water retention over time. The added benefit of the canopy's shading and proposed water collection system will also make it easier for us to address the two elements critical for maintaining a successful livestock operation long-term: water access and shade protection during hot and dry days.

Aside from the technical benefits of the dual-use canopies, rental income from the Projects will allow us to purchase supplies and equipment necessary to farm. The rental income will also mitigate our farm's downside risk during unproductive years, similar to crop insurance, and will make it financially

easier to maintain and expand our operations and address the farm's basic financial obligations. Because of this stability, we'll be in a better position to do what we'd like to do – experiment with sustainable farming practices. Lastly, because the Projects' power price under the SMART program depends on there being continuous farming throughout their 20-year life, BlueWave will be motivated to ensure that Knowlton Farms is successful in farming the property for years to come.

Regarding viewshed impacts, we appreciate the Town's sensitivity to overdevelopment along Estabrook Ave as well as the incremental changes witnessed on our property. Our family values the property's historic pastoral nature, and because of this we directed BlueWave to avoid developing either of the fields immediately adjacent to the south side of the road, which we want to preserve in their current state. In result, we prioritized locations that were either the least visible from the road (in the case of the large project), or where we could block views of the existing solar farms with a more agriculturally-oriented use (as is the case with the project north of the street). We maintain a strict commitment to preserving the fields adjacent to the road in their existing state as "off limits" to solar.

Overall, the Knowlton family firmly believes that the proposed dual-use projects will enhance the agricultural nature of our property for years to come. In addition to the reasons stated above, our long-term partnership with BlueWave and the UMass Amherst agricultural extension school will allow us to pursue business opportunities that will make it easier and more financially viable to transition to farming full time. We're excited about the possibility of demonstrating new, sustainable farming methods through our partnership with BlueWave, and are eager to take this opportunity to plug into the agricultural research resources of this great state.

Thank you very much, we hope this memo adequately clarifies the outstanding questions from the Planning Board.

Sincerely,

Paul Knowlton

A handwritten signature in black ink that reads "Paul Knowlton". The signature is fluid and cursive, with the first name "Paul" being more prominent than the last name "Knowlton".

Knowlton Farms

43 Estabrook Avenue

Grafton, Massachusetts, 05159